

Code No: 135CV**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year I Semester Examinations, October - 2020****OPERATING SYSTEMS****(Common to CE, EEE, ME, ECE)****Time: 2 hours****Max. Marks: 75****Answer any five questions
All questions carry equal marks**

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- 1.a) What are the different types of computing environments? Explain.
b) Discuss in detail about memory management. [7+8]
- 2.a) Explain about inter process communication.
b) Discuss about various types of schedulers. [7+8]
- 3.a) Discuss in detail about IA-32 paging.
b) How to manage virtual memory in windows? Explain. [7+8]
- 4.a) Discuss in detail about free space management.
b) Compare various disk scheduling algorithms. [7+8]
- 5.a) State and explain the four conditions that create deadlock.
b) Discuss in detail about deadlock avoidance. [7+8]
- 6.a) What is system call? Explain various types of system calls with example.
b) Explain in detail operating system design and implementation. [7+8]
- 7.a) Discuss in detail about real-time scheduling.
b) Differentiate between semaphore and monitor. [7+8]
- 8.a) Discuss in detail about optimal page replacement algorithm with example.
b) What is demand paging? Explain. [7+8]

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